Oregon Department of Environmental Quality
National Pollutant Discharge Elimination System (NPDES)
Program Review

Conducted by:
U.S. Environmental Protection Agency, Region 10
Office of Water and Watersheds
Office of Compliance and Enforcement

January 12, 2005

OREGON NPDES PROGRAM REVIEW

EXECUTIVE SUMMARY

The Environmental Protection Agency (EPA) Region 10 has conducted a comprehensive review of the Oregon Department of Environmental Quality (ODEQ) National Pollutant Discharge Elimination System (NPDES) program. The review was conducted as part of the Region's responsibility, under the Clean Water Act, to conduct oversight of authorized state NPDES programs. The program areas reviewed were NPDES permits (including permits for storm water), and enforcement. The biosolids program was not evaluated because ODEQ does not administer an EPA-approved biosolids program. Also, the pretreatment program was not addressed at this time.

Oregon has been authorized to implement the NPDES program since 1973. Recently, the EPA has placed an increased emphasis on conducting oversight of the states' NPDES programs, and on providing guidance to help reduce their backlog of expired permits. The last comprehensive (programmatic and enforcement) review of the Oregon NPDES program was in 1995. The following is a list of the six primary review findings resulting from this comprehensive program review, followed by a list of secondary findings. Finally, the executive summary outlines EPA's expectations for a response from ODEQ to address the findings of this report.

Primary Review Findings:

1. Excessive Permit Backlog

When EPA initiated this program review, Oregon had an NPDES permit backlog of 59% for major facilities and 41% for minor facilities which exceeds EPA's national target of 10%. The backlog of expired permits for major facilities has been one of the highest in the nation and is a significant concern to EPA. Most importantly, not issuing permits in a timely manner can result in delays to improvements in water quality. The backlog also delays collection of necessary effluent and receiving water information, delays implementation of additional appropriate requirements for facilities, and can result in inconsistent permit requirements across the state. It should be noted that ODEQ has made substantial progress during late 2003 and into 2004 to reduce the backlog of expired permits. The major facility backlog has been reduced to 33%. Related to the backlog issue is a general lack of a statewide permit issuance plan and an accountability system to manage permit issuance.

2. Lack of Statewide Program Guidance and Oversight

There is a lack of statewide program guidance and oversight resulting in inconsistencies across the state in a number of program areas. ODEQ needs to provide guidance to regional offices to ensure that the quality of permits and enforcement is consistent. ODEQ needs guidance, policy and procedures, permit writing tools, permit writer training, and inspector training to be developed and implemented on a statewide basis in order to achieve permits and enforcement of consistent high quality statewide. This

effort will also improve efficiency and help address the permit backlog.

3. Water-Quality Based Permitting Shortfalls

Water-quality based permit conditions are those conditions developed to protect state water quality standards. National guidance to develop and implement water-quality based permits was published by EPA in 1991, and has been widely implemented across the nation. Lack of water-quality based permit requirements was a finding of EPA's program review conducted in 1995. Although ODEQ has achieved some improvement in this area since 1995, numerous shortcomings were again identified in this review. Publically-owned treatment works, for example, are not always evaluated for their potential to contribute to water quality standard violations for parameters commonly associated with treated domestic waste such as: ammonia, pH, and metals for cities that receive industrial waste.

Likewise, water-quality based permitting should be a routine element of industrial permit evaluations along with the determination of technology-based limits. ODEQ permits seldom require permittees to collect receiving water data as a condition of the permit. Such data is necessary in order to support water-quality based permitting analysis and to determine point source impacts on the receiving water. By not adequately assessing the effect of a discharge on the receiving water, permits may be issued that are not be protective of state water quality standards.

4. Lack of an Adequate Data Management System

ODEQ currently lacks an adequate data management system to track compliance and enforcement actions. This is a significant program deficiency that inhibits a comprehensive evaluation of ODEQ's enforcement and compliance program. A data management system provides a valuable tool for permit and compliance staff by insuring all non-compliance events are recorded and readily available. While the current system successfully tracks permit dates, it is unable to track compliance with permit conditions over time. As a result, ODEQ, EPA, and the public are unable to readily determine the overall compliance of NPDES-permitted facilities in Oregon.

A comprehensive and accurate data management system would not only allow ODEQ to track the overall compliance of permitted facilities, but it would ensure that all violations are addressed when taking an enforcement action. Currently, compliance officers must do a time-consuming comprehensive file review to ensure that all violations are included in the case development package. There is no way for EPA's Office of Compliance and Enforcement (OCE), or EPA and the public, to insure all the violations are being addressed by an enforcement action. ODEQ has committed to EPA to develop a data system which can integrate with the national Permit Compliance System (PCS) database and the Integrated Compliance Information System (ICIS). Since the review, ODEQ has developed an effluent data tracking system and have committed to inputting their permits

and effluent data into PCS. At this time these systems are not being populated with actual data.

5. Over-Reliance on Mutual Agreement and Orders (MAO).

MAOs are ODEQ's equivalent to the administrative compliance orders EPA issues pursuant to Section 309(a) and (g) of the Clean Water Act (CWA). In certain cases an MAO may be an appropriate tool to place a non-compliant facility on a schedule for coming into compliance with its NPDES permit. MAOs may also be appropriate when used in conjunction with civil penalties. However, ODEQ's MAOs do not appear to be applied consistently across the state. Also, terms of many of the MAOs EPA reviewed are inconsistent with the CWA. EPA noted the following deficiencies: (1) compliance schedules were too long; (2) interim limits for parameters in noncompliance were too lenient; (3) final compliance dates in some MAOs are uncertain; and (4) addenda to interim and final dates appear frequently. Not every MAO had all of these deficiencies. Some MAOs had none of these deficiencies.

It is recommended that ODEQ develop a more explicit and comprehensive statewide policy on how to develop MAOs, what to place into the contents of MAOs, and appropriate schedules for inclusion in a MAO. This would create consistency between regions that is currently lacking. It may also provide more stringent requirements of when an MAO is appropriate and when and how it can be modified.

6. Failure to Calculate Economic Benefit when Assessing Penalties

Whenever a civil penalty is assessed, the economic benefit of noncompliance should be calculated. Assessing civil penalties that exceed the economic benefit of noncompliance is crucial to ensuring that violators do not have a financial incentive to violate the law. If civil penalties do not exceed economic benefit, violators essentially profit from polluting. Under certain circumstances, economic benefit may be *de minimis* and may not warrant being added to the penalty. However, an analysis of economic benefit should always be made to determine whether it is, in fact, *de minimis*. EPA's review of ODEQ's enforcement actions revealed that economic benefit did not appear to be evaluated. Written determinations of *de minimis* economic benefit should be included in internal enforcement documents.

Other Review Findings:

Dedicated Program Management and Staff

ODEQ has a dedicated and competent team of permit staff and management that is committed to the success of the NPDES program. This is evident by their cooperation and assistance during this review and other ongoing projects. ODEQ has previously conducted an internal program review (WIPT report, 2001), initiated manager and staff changes to create a team to improve the program (April, 2003), and recently completed an in-depth review of the program with a Blue Ribbon Committee of stakeholders (final report July 2004).

Communication with the Regulated Community

Communication and compliance assistance between ODEQ staff and the regulated community is a strong element of ODEQ's compliance program. ODEQ is familiar with their facilities and, therefore, better able to discuss problems and issues as they arise. ODEQ staff also actively engage the necessary stakeholders in anticipation of new NPDES programs, in particular operators of municipal separate storm sewer system on topics related to new storm water permitting requirements. Such ongoing and consistent interaction may help in issuing enforcement actions in a timely manner, and with permit reissuance. ODEQ also maintains a database which allows the public to track permit dates online.

Resource Shortfall

Existing NPDES program resources fall short of what is necessary to meet program goals of issuing permits on a five-year watershed cycle. EPA is supportive of ODEQ's existing efforts to secure additional resources for the NPDES program. EPA recognizes that efforts necessary to address the findings of this review will also add to the resource needs of the permitting program.

Outdated Limitations in Industrial Permits

Technology-based effluent limitations in industrial permits are often carried forward from the previous permit, which often times were issued up to ten years previous. When permits are reissued, production based limits should be updated to reflect current actual production at the facility.

Authorization of Sanitary Sewer Overflow (SSOs) and Lack of SSO Enforcement

Sanitary sewer overflows (SSOs) are untreated or partially treated sewage overflows from a sanitary sewer collection system. ODEQ's municipal permits frequently authorize SSOs through emergency overflow outfalls. ODEQ uses a design storm approach as a

basis for allowing SSOs. EPA's concern is to assure that ODEQ's permitting approach will result in all discharges from the sanitary sewer system meeting secondary treatment and water quality-based requirements, or will result in such discharges that are approvable under the bypass regulation. EPA intends to continue discussions with ODEQ about what measures ODEQ should be taking to assure that these results are attained. These measures should include a full range of options, including infiltration and inflow removal, collection system management operation and maintenance, as well as providing adequate storage, conveyance, and treatment capacity. EPA also found a lack of enforcement actions associated with SSOs in Oregon, considering the significant number of publically-owned treatment works that reported SSOs.

Timely Enforcement Actions

The Enforcement Guidance for Field Staff states a goal of 55 days from the initial violation discovery to the day an action is sent to the Director of ODEQ. ODEQ's Office of Compliance and Enforcement (OCE) has not routinely met this goal. It is noted that ODEQ's goal exceeds EPA's own guidance and that ODEQ average case and the specific case identified in this report are both within the 90 - 180 day timeliness goals set for EPA.

Consistent Formal Enforcement Actions

OCE issues all civil complaints. By having one office handle all civil complaints, a significant level of consistency is achieved in enforcement actions. Review of OCE's enforcement actions confirmed that actions taken against NPDES permitted facilities are consistent.

Comprehensive Case Development Packages

Permit/compliance officers collect supporting evidence and provide the necessary information for OCE to issue a formal enforcement action for violations. The Enforcement Guidance outlines the steps and describes the required information for the case development packages.

Inappropriate Use of Supplemental Environmental Projects

ODEQ's Supplemental Environmental Projects (SEPs) are inconsistent with EPA's SEP policy. An essential element of SEPs is that facilities are not granted credit for projects that need to be done to ensure compliance with their NPDES permit.

As demonstrated by the primary review findings above, the ODEQ NPDES permitting program is in need of revision in order to address program shortcomings. EPA's greatest concern is that because of the permit backlog, deficiencies with the water-quality based permitting efforts, lack of program guidance, and compliance shortfalls, the state's NPDES program is not providing sufficient protection of water quality throughout the state. In response to this review, EPA asks that ODEQ develop a workplan to address the findings of this report.

During the same period that the review was being conducted by EPA, the ODEQ established a Blue Ribbon Committee (BRC) to conduct an in-depth review of Oregon's NPDES program. The BRC issued their final report in July 2004. The BRC identified specific program activities and actions needed to enhance the program. EPA acknowledges the efforts of ODEQ and the BRC to improve the program. EPA expect the workplan in response to the findings of this review will incorporate many of the BRC recommendations.

EPA and ODEQ have included a requirement in the EPA/State Performance Partnership Agreement (PPA) for 2004-2006 to develop and implement a workplan to address the findings of this program review. Inclusion in the PPA should enhance EPA's ability to track progress towards correcting the findings. EPA will also pursue with ODEQ, an update to the Memorandum of Agreement between the two agencies in order to revisit and update procedures for regular EPA oversight of the ODEQ program.

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I. Introduction

EPA Region 10 conducted a comprehensive review of the Oregon Department of Environmental Quality (ODEQ) National Pollutant Discharge Elimination System (NPDES) program. The review was conducted as part of the Region's responsibility, under the Clean Water Act, to conduct oversight of authorized state NPDES programs. Oregon has been authorized to implement the NPDES program since 1973. Recently, the Region has placed an increased emphasis on conducting oversight of the states' NPDES programs, and on providing guidance to help reduce their backlog of expired permits. The last comprehensive (programmatic and enforcement) review of the Oregon NPDES program was in 1995. A review of the compliance program only was conducted in 1999.

The 2002-2004 Performance Partnership Agreement between ODEQ and EPA included a commitment for the organizations to work cooperatively to conduct a review of the NPDES permit program in order to assess its strengths and weaknesses. An initial scoping meeting to plan for the review was held in October 2002. EPA sent a letter to ODEQ officially initiating the review in November 2002, including a request to ODEQ's Surface Water Management Program to submit relevant program description and background information. The background request included description of permit and enforcement processes, procedures, guidance, resources, organizational description, permit status reports, and permit issuance plans among other information.

Information in response to the background request was provided from January through June 2003. During the summer and fall of 2003, an EPA review team spent one week at each of the three ODEQ regional offices. During these office visits, the Region 10 review team interviewed management, permit, administrative, and enforcement staff. In addition, the Region reviewed approximately 20 permit administrative records at each office, focusing on a broad cross section of recently issued/reissued permits. The program areas reviewed were NPDES permits (including storm water permits), and enforcement. The biosolids program was not evaluated because ODEQ does not administer an EPA-approved biosolids program. Also, the pretreatment program was not addressed at this time.

II. Summary of the Oregon Program

EPA approved Oregon's authority to administer an NPDES program on September 26, 1973, making Oregon one of the first states in the nation to receive authorization. The initial Memorandum of Agreement (MOA) between EPA and ODEQ, signed on September 20, 1973, established responsibilities between the agencies to operate the program. On March 2, 1979, the Administrator of EPA approved a modification of the MOA which recognized ODEQ's authority to administer the NPDES program at federal facilities located in the state. ODEQ received authority to administer the Pretreatment program on March 12, 1981, and the state's program was modified to approve the use of general permits on February 23, 1982. Another modification and update to the MOA was signed on May 3, 1984, largely to recognize ODEQ's primary enforcement responsibility for Oregon's underground injection control (UIC) program. A separate Compliance Assurance Agreement between EPA and ODEQ also exists which reflects the current understanding between the agencies with regard to the compliance aspects of the UIC and NPDES program.

ODEQ is organized through a centralized headquarters office located in Portland and three decentralized regional areas in the Northwest, Western and Eastern Regions. The regional areas are also comprised of numerous smaller branch offices. The central headquarters office is responsible for statewide permitting functions such as: issuance of statewide general permits, oversight of regional offices, issuance of statewide policies and guidance, interacting with the legislature, developing state regulations, and formal enforcement actions (civil penalties). The regional offices are responsible for issuing individual permits and coverage under general permits, as well as taking informal enforcement actions. Informal actions include notices of noncompliance, letters, phone calls, and compliance assistance.

The regional offices administer and manage their regional NPDES program somewhat independently of headquarters and the other regions. Each regional office has its own unique organizational structure. The Western region, for example, has a team of permit writers whose primary function is to issue NPDES and state wastewater permits. A separate team carries out the compliance and enforcement portion of the program. The Eastern and Northwest regions are organized such that staff are assigned to facilities. The staff person is then responsible for all NPDES and state permitting activities for their assigned facilities including permit writing, enforcement, compliance assistance, inspections, and other activities such as facility plan reviews and grant administration.

The following table lists the number of individual NPDES permits managed by ODEQ by region. The table also includes the number of facilities issued NPDES permit authorization under a general permit and also those facilities covered by the stormwater general permits (does not include state Water Pollution Control Facility permits):

Number of Oregon NPDES Facilities by Region or Covered Under a Statewide Permit					
	Eastern	Northwest	Western	Statewide	Totals
Major Facilities	12	29	36	0	77
Minor Facilities	54	82	150	0	286
Facilities covered by General Permits (excl. Storm Water)	56	126	251	149	582
Facilities covered by Storm Water General Permits	123	902	971	18	2014
				total:	2960

ODEQ had 59 full time equivalents (FTEs) to administer the program during the state fiscal year 2002-2003. This included resources to administer both the NPDES program and also the state Water Pollution Control Facility (WPCF) program as well as the pretreatment, biosolids, and effluent reuse programs. (WPCF permits are for facilities that discharge other than to surface water such as land application for irrigation purposes. The state manages 180 domestic and industrial WPCF individual permits.) The 59 FTEs include permit writing, compliance, technical assistance, enforcement, rule/guidance development, review of facility plans, data systems, and management and clerical support. The current source of funding to support the program is: 9% from federal funds, 31% from general funds, and 60% from permit fees.

ODEQ has established permitting priorities on a watershed basis. ODEQ plans to continue this approach and develop a statewide prioritization policy for permit issuance and compliance through a watershed based management approach. ODEQ believes that this approach would coordinate permit issuance, compliance, monitoring, and total maximum daily loads (TMDLs).

III. Review Findings

For the purposes of this report, the findings made by EPA have been organized into one of three areas: program administration, permit quality, and compliance/enforcement. Program administration includes findings related to organizational structure, public participation requirements, staff training, statewide guidance and regulations, resources, permit prioritization plans, and permit backlog. Permit quality refers to the specific content of the permits such as the effluent limitations and conditions and derivation of conditions. Compliance/enforcement refers to formal actions carried out by the headquarters office as well as to informal enforcement (such as notices of non-compliance, and compliance assistance) conducted by the regional offices. Also, for comparison purposes, findings from the last EPA comprehensive review conducted in 1995 and the 1999 enforcement review are summarized and included as Appendix A of this report.

A. Program Administration

Program administration includes findings related to organizational structure, public participation requirements, staff training, statewide guidance and regulations, resources, permit prioritization plans, and permit backlog. Most of the information used to reach the findings of this section was provided by the state in response to EPA's initial request for information related to the program review. Information gained through entrance interviews and staff interviews in each region also contributed to the findings made below. The EPA letter requesting information, and examples of entrance questions and permit writer questions are included in Appendix B. The criteria used to evaluate the program under this section include in part: EPA policy memo "Interim Framework to Ensure Issuance of Timely, and High Quality NPDES Permits," July 28, 1999, various EPA NPDES regulations including 40 CFR 122.21 for application process, and 40 CFR 124.10 for public notice requirements, for example, and general observations made from regional office visits with regards to program consistency and adequacy of resources.

1. Organization

As discussed previously, ODEQ has a decentralized organization. Decentralization allows the permit writer and compliance staff to be geographically closer to the permitted facility than if they were located in the headquarters office. This likely increases the ability of the permit staff to gain a working knowledge of the facility and to provide better service. Decentralization also allows the regions the ability to tailor the program somewhat to localized needs. After review of permit administrative records across the state, EPA finds that ODEQ NPDES staff have a high level of communication with the facilities and provide a great degree of permit assistance and support.

Decentralization also presents unique challenges for ODEQ, particularly in the area of consistent permit quality across the state. EPA found that permit quality and some other elements of the NPDES program are not implemented consistently from one region to the next. Examples of program elements that vary from one region to another include the regularity or degree of water quality-based permitting (evaluating whether the permit protects water quality standards), frequency of the use of models such as dilution models and DO sag models, level of detail in permit evaluation reports, use of Mutual

Agreement and Orders (MAOs), and enforcement inconsistencies.

EPA also finds that the Oregon program is lacking an organized set of statewide policies, guidance, and tools for the program. This confirms an ODEQ finding from a previous internal review. ODEQ performed an internal review of the permit program in order to identify process improvements that increase program efficiency and effectiveness. The final report, The Wastewater Permitting Improvement Team (WIPT), June 2001, included a recommendation to create and maintain a list of existing policies, guidance, and tools for permit writing and processing. The report also called for creating new policies, guidance, tools and rules, develop standardized language for similar permitting situations, and making the information available electronically so that it is accessible. During this review, EPA found little progress in this area. ODEQ needs to develop the centralized permit writing tools identified above. There is an Oregon permit template tool, permit "wizard", for developing domestic permits. A similar tool for industrial facilities is targeted for development by ODEQ and will assist permit writers. A template for the permit evaluation report would also be beneficial. Implementing the recommendations from the state WIPT report would address the lack of statewide consistency and also improve permit writing efficiency.

Training opportunities for permit staff in Oregon is currently very limited. The only training opportunities provided in 2003 was the EPA overview course for new permit writers. In previous years ODEQ held bi-annual permit writers meetings which served as a training opportunity for staff. These meetings were apparently cut due to travel budget restrictions. During staff interviews, most permit writers supported reinstituting this training opportunity. ODEQ should place greater effort on offering training for permit staff on a regular basis. Again, the WIPT report recommended designation of a state training coordinator, development of a mentoring program, and permit writers' meetings. This recommendation has not been implemented. The EPA review team supports these recommendations and the central office should lead this effort. Additional comments regarding training for compliance officers is included in the compliance/enforcement section below.

2. Permit Process

All ODEQ regions have similar procedures for receiving and processing NPDES applications and permits. ODEQ staff send letters to the facilities to remind the permittee when applications are due. The reminder letter is a valuable program element that helps the facility to avoid expiration of its permit. Once received by ODEQ, the applications are checked by administrative staff and entered into the data base, processed, and forwarded to the permit writer. Relevant permit dates including the application receipt date are entered into the Source Information System (SIS) permit database which is available to the public online. This processing of permit applications and the SIS tracking data base available on the web site are program strengths in Oregon. The SIS data base is limited to tracking permit dates, however, and not permit compliance data.

Public notices for permit actions are not always published in local newspapers. Public notice is provided to the local newspaper and published at the newspapers' discretion.

Proposed permits for major facilities must be published in a local newspaper per federal regulation at 40 CFR 124.10(c)(2)(i). ODEQ could also enhance public participation in the permit process by posting all public notices and draft permits on the ODEQ Web site as is currently done for the most significant permit actions in the state. Federal regulation also require that the public notice be mailed to certain persons as specified in 40 CFR 124.10(c)(1). Evidence of public notice mailings was generally not in the administrative records.

3. Backlog

The Clean Water Act specifies that NPDES permits may not be issued for longer than five year terms. Permittees that wish to continue discharging beyond the five year term must submit a complete application for permit renewal at least 180 days prior to the expiration date of their permit. If the permitting authority receives a complete application, but does not reissue the permit prior to the expiration date, the existing permit is generally "administratively extended." Permits that have been administratively extended beyond their expiration date are considered to be "backlogged." Facilities awaiting their first NPDES permits are also considered part of the NPDES permit backlog.

Not issuing permits in a timely manner can result in delay in improvements to water-quality. Expired permits may not reflect changes in facility operation, promulgation of new guidelines or standards, or localized total maximum daily loads for the receiving water, each of which can affect permit conditions. Issuing permits over a long cycle can also result in inconsistent permit conditions for similar types of facilities across the state.

Several years ago, in an effort to address an unacceptable level of backlogged permits, and following an EPA Office of Inspector General report on the backlog, EPA developed a national backlog reduction strategy that included two primary goals: 1) The number of facilities with current NPDES permits for major facilities will be increased to 90 percent in all states by the end of calendar year 2001 (i.e. majors backlog at or below 10%), and 2) the number of facilities (major and minor) with current NPDES permits will be increased to 90 percent in all states by the end of calendar year 2004 (i.e. all facilities backlog at or below 10%).

When EPA initiated this program review, Oregon had an NPDES permit backlog of 59% for major facilities and a backlog of 41% for minor NPDES facilities. The majors backlog has ranged from 59-65% over the previous five years while the minors has ranged from 41-49%. These figures are for individual permit actions. Many minor facilities are covered under general permits. The backlog for minor facilities including those covered by general permits is 61%. The backlog for major facilities had been one of the highest in the U.S. Backlog numbers from the other states can be found on EPA's national website.

It should be noted that ODEQ has made substantial progress during late 2003 and into 2004 to reduce the backlog of expired permits. Currently, ODEQ's NPDES majors individual permit backlog is 33% and the minors individual permit backlog is 21%.

Related to the backlog issue is a general lack of a statewide permit issuance plan and an accountability system to manage permit issuance. Each region is responsible for development of permit issuance plans. The degree of planning for permit issuance and development of systems to track permit dates or other accountability systems varied among the regions. The Western Region had a clear permit plan, workload assignments, and a tracking system to follow key permit dates and manage permit issuance. The Northwest Region also had a permit issuance plan and assignments.

ODEQ has made an effort to address the backlog problem by making permit issuance a high priority, developing some regional permit issuance plans, shifting resources, seeking additional resources, and identifying bottlenecks in the permit issuance process (see Oregon Wastewater Permitting Improvement Team Report, 2001). Recently, the ODEQ established a Blue Ribbon Committee (BRC) to conduct an in-depth review of Oregon's NPDES program. The BRC issued their final report in July 2004. The BRC identified specific program activities and actions needed to enhance the program. EPA acknowledges the efforts of ODEQ and the BRC to improve the program.

EPA supports these efforts, however, the backlog of expired permits and the ability to achieve national backlog targets remain a significant concern to EPA. While supportive of ODEQs draft plans to address the backlog on a watershed basis, EPA is concerned that delay in TMDL issuance for example, can result in permitting delays. ODEQ will need to carefully consider the watershed cycle approach and significantly improve in the area of permit issuance in order to meet national permit backlog goals. A comprehensive plan needs to be developed to reduce the backlog and to maintain it at the national target. Through quarterly reports, EPA will continue to track ODEQ progress towards reducing the backlog.

4. Resources

EPA gathered information during the program review regarding permit program resources. EPA received a description of staff resources, estimates of costs to administer the program, and an itemization of the sources and amounts of funding for state fiscal year 2002-2003. EPA also discussed resources with each regional manager and workload issues with regional staff. EPA also reviewed ODEQ's 2001 analysis of resources needed to administer the program which was included in the Wastewater Permitting Improvement Team report. ODEQ used the EPA Workload Model, which is a tool to estimate resources necessary to process NPDES permits. EPA did not conduct any other independent analysis of ODEQ resources.

ODEQ used the EPA workload model in 2001 to estimate the number of resources necessary to process all of Oregon's NPDES permits over the five year cycle. ODEQ recognized in the report that these are estimates that should only be used as benchmarks for comparison with actual operating results. The model estimated that the ideal wastewater permitting program operating level in Oregon was greater than current resources. ODEQ's current permitting program (state and NPDES permits) include 59 FTE with 20 FTE assigned to permit writing.

Recently, ODEQ has identified an optimal staffing level of 64 FTE's for the NPDES and WPCF programs. ODEQ proposes to seek funding to gradually add these 5 FTE's over the next two biennia.

The 20 FTE currently assigned to permit writing are responsible for both NPDES permits as well as state WPCF permits. ODEQ estimates 60% of the 20 FTE is dedicated to NPDES permits and 40% for WPCF, so roughly 12 FTE is dedicated to NPDES permit writing in the state.

Due to ODEQs organizational structure within the regional offices, most permit writers in the state are also responsible for compliance/enforcement and many have other roles such as providing facility plan review and administering grants. Permit staff spend time in non-permit writing activities such as complaint response, inspections, and technical assistance. Interviews with permit staff confirm that these competing demands frequently take precedence over permit writing work. Resources assigned to permit writing may be less than anticipated due to these competing demands.

In light of the EPA model results provided in the state report and information provided above, EPA finds that current permit writing resources appear to fall short of what is necessary to meet program goals and additional permit writing resources are necessary in order to address the NPDES backlog issue. In addition, addressing the findings of this program review will add additional pressure onto ODEQ permitting program resources. EPA is supportive of ODEQ's existing efforts to secure additional resources for the NPDES program.

5. Memorandum of Agreement (MOA)

The original MOA between EPA and ODEQ to delineate the responsibilities to operate the NPDES permit program was signed on September 20, 1973. Among various requirements, the MOA included provisions for ODEQ to submit NPDES permits to EPA and procedures for EPA to review permits and comment or object to permit issuance. Modifications to the MOA were signed on March 2, 1979, and May 3, 1984. Both modifications significantly changed ODEQ's responsibilities to submit NPDES information to EPA and EPA's oversight responsibilities. With amendments to a thirty-year old MOA, it is difficult to clearly determine responsibilities under the agreement. It does appear that both ODEQ and EPA are not meeting all aspects of the MOA and amendments. For example, ODEQ is expected to submit draft permits to EPA for review while EPA is expected to perform annual performance evaluations (audits). Both agencies should work to revise the MOA in order to reflect current procedures and expectations.

6. Summary of Program Administration Findings

- There is a high level of communication and compliance assistance between ODEQ staff and the regulated community.
- ODEQ has a dedicated and competent team of permit staff and management that

is committed to the success of the NPDES program. This is evident by their cooperation and assistance during this review and other ongoing projects.

- ODEQ successfully tracks permit dates (not compliance data) through the Source Information System data base which is available to the public online.
- There is a significant lack of statewide program guidance and oversight resulting in inconsistencies across the state in a number of program areas. ODEQ needs to provide guidance to regional offices to ensure that the quality of permits and enforcement is consistent. ODEQ needs guidance, policy and procedures, permit writing tools, permit writer training, and inspector training to be developed and implemented on a statewide basis in order to achieve permits and enforcement of consistent high quality statewide.
- Public notice of permit actions for major facilities need to be published in a local newspaper. ODEQ could enhance public participation by posting public notices and draft permits on the ODEQ Web site.
- Oregon has an NPDES permit backlog of 33% for major individual facilities and 21% for minor individual facilities which exceeds EPA's national target of 10%. The backlog of expired permits for major facilities has been one of the highest in the nation and is a significant concern to EPA. Most importantly, not issuing permits in a timely manner can result in significant delays in improvements in water quality.
- Existing permit writing resource appear to fall short of what is necessary to meet program goals.
- The Memorandum of Agreement between ODEQ and EPA should be updated.

B. Permit Quality Findings

Permit quality refers to the specific content of the permits such as the effluent limitations and conditions and derivation of those conditions. Most of the information used to reach the findings of this section was gathered by EPA during reviews of permit administrative records. EPA spent a week in each of the three regional offices reviewing 55 NPDES permit records. The list of permits reviewed can be found in Appendix C. Information gained through entrance interviews with the regional managers and permit writing staff also contributed to the findings made below. The criteria used to evaluate the program under this section includes primarily the EPA NPDES regulations at 40 CFR Part 122. In particular, Part 122.41 conditions applicable to permits, Part 122.44 establishing limitations, Part 122.45 calculating permit conditions, and also 40 CFR 133 secondary treatment requirements were most relevant as review criteria. EPA also established review criteria based on the procedures found in the EPA document: "Technical Support Document for Water Quality-based Toxics Control" (TSD), EPA, March 1991.

EPA developed a checklist to guide the review of the 55 permits and files (the checklist can be found in Appendix B). EPA also developed criteria for selecting the 55 permits for review. EPA was most interested in reviewing permits issued within the last three years in order to reflect current ODEQ procedures. EPA also tried to include a balance of major and minor permits reviewed in each region and also tried to select a balanced sample of both municipal and industrial permits. The following criteria were also considered when selecting permits for review in each region: those containing water quality-based conditions, facilities discharging to impaired waters, permits with conditions based on TMDLs, permits with Mutual Agreement and Orders (MAOs), and permits which address stormwater.

1. Water-Quality Based Permitting

The technical support document (TSD), issued by EPA in 1991, provides permit authorities the procedures necessary for water quality-based permitting to control toxic pollutants. These procedures guide the permit writer to develop permit conditions that protect water quality standards. One recommendation of the EPA 1995 review of the Oregon NPDES program was that ODEQ continue to move toward water quality-based permitting consistent with the Clean Water Act and the 1991 EPA guidance. The 1995 review also recommended that the state complete mixing zone studies that were ongoing at that time and to develop a policy to determine if a discharge has a "reasonable potential" to contribute to exceedances of water quality standards. Since publication of the TSD in 1991, the procedures have been widely implemented across the country when developing water quality-based permits. In the Northwest, both EPA Region 10 (Idaho, Alaska) and the Department of Ecology in Washington State have been following TSD procedures.

In this review, EPA found that the extent of water quality-based permitting has increased since the program review of 1995 although more progress is necessary. For example, water quality-based chlorine limits for municipal facilities is a common and routine condition of Oregon municipal permits. Other recently issued permits include an

analysis of the need for water-quality based permit limits, other than chlorine, and some permits include water-quality based limitations (permit examples: 22, 26, 28, 39 (metals), 46, 47 see Appendix C for permit reference numbers). ODEQ has also developed a spreadsheet which is used to determine whether water-quality based limits are necessary for a particular discharger. This spreadsheet was developed and used in one regional office and some version of it was present in permit records in other regions (22,26,28,39,47). ODEQ has also conducted a limited amount of water quality mixing zone analysis to support permit decisions. Along with this progress, EPA also found a number of areas where ODEQ could improve permit quality related to water quality-based permitting.

EPA found inconsistencies across the state with regard to water quality-based permitting. This is directly related to the general consistency finding cited in the Administrative section above. EPA found that the likelihood of water quality-based methods being used to develop permit conditions varies from one region to the other. Likewise, adherence to EPA TSD procedures varies by region. Also, some regions have a greater capacity to conduct water quality modeling to support permit decisions than do other regions. As cited previously, there is a need for the ODEQ central office to take a larger role in efforts to level the playing field and bring all permits across the state up to the same level of quality with respect to water quality-based permitting.

EPA found a number of water quality-based related issues with permits issued to publically owned treatment works (POTWs). During the review, EPA paid particular attention to parameters commonly associated with domestic waste discharges such as: chlorine, ammonia, pH, and metals. As mentioned previously, Oregon municipal permits were found to routinely include chlorine limitations and the record generally included the derivation of the limit. This was true in all three regions.

Evaluation of ammonia was inconsistent. Ammonia is a pollutant of concern from POTWs due to toxicity in the receiving water. Ammonia evaluation should be routine for recently issued permits to POTWs. Occasionally, the record for the municipal permit would include an evaluation and resultant ammonia limit (28, 38, 47, 29). Many municipal permits, however, were not addressing ammonia or only addressing with a narrative or qualitative analysis (qualitative: 3, 4, 48; no analysis: 2, 5, 11, 31, 33, 34, 35, 39, 49). Other municipal permits were evaluated for ammonia compliance in the receiving water and it was concluded that a limitation was not necessary. (EPA also had comments on how reasonable potential and water quality-based methods are being conducted in Oregon and compliance with TSD procedures. These are typically specific to the permit and are available on the individual checklists from EPA.)

Chlorine and ammonia are much more likely to be evaluated for municipal dischargers in Oregon than evaluation of metals criteria. EPA found only a few municipal permits in the state where the potential of the discharge to contribute to metals criteria exceedance was investigated (26, 41, 39). Based on EPA's experience in the Northwest, it is not unusual for large municipal facilities to have reasonable potential to cause exceedances of metal water quality standards and for permits to include limitations for metals. At a minimum, municipal permits with pretreatment programs, that is, receiving waste from

industrial users within the service area, must be evaluated for their potential to contribute to metal criteria exceedances and limits included where necessary (27, 29, 33). Pretreatment cities are required to monitor at least twice per year for metals concentrations in the influent and effluent, therefore, data is available to examine receiving water impacts. This data must be evaluated to determine if the discharge has a reasonable potential to exceed criteria. Likewise, if the receiving water is impaired for a particular toxic the permit record must include an analysis of whether the facilities has the potential to contribute to the impairment (27 - Hg).

Analysis of the impact of the municipal discharge on in-stream pH is typically not quantified in Oregon municipal permits, although, it is often discussed in the record. Technology-based limitations for pH for municipal facilities are listed in Oregon regulation and are always included as permit limits for municipal facilities. The technology limits, however, are less stringent than the water quality criteria for pH. Permit records often include a qualitative statement that compliance with technology limits will allow water quality criteria to be met in the receiving water without an analysis. Permits should include the water quality-based limit for pH unless the less stringent technology limit is shown to be protective of the pH standard. Also, technology-based limits are included as limitations even in situations where the receiving water is impaired for pH (20, 34, 49). When a receiving water is impaired for pH, the permit should include the pH water quality criteria as an effluent limitation.

Municipal facilities are required to achieve 85% removal of BOD_5 and TSS under the secondary treatment requirements. Federal regulations allow less stringent permit removal if certain conditions are met (40 CFR 133.103). A number of Oregon permits contain lower percent removal limitations and cite the federal regulation at 40 CFR Part 133 as justification, however, these permit records lack a demonstration that the conditions in the federal regulations are met and also lack documentation of how the final percent removal in the permit was derived. Often the record will simply cite the federal regulation and include a lower percent removal (3, 8, 28, 31, 32, 48). Although lower percent removal may be appropriate for these facilities, the record should include the documentation that the conditions of the federal regulation have been met and also how the percent removal limitation was determined for that facility.

The remaining issues in this section apply to both municipal and industrial permits. EPA found examples of ODEQ permit evaluations where it was demonstrated in the record that the discharge from the facility has the reasonable potential to cause an exceedance of a water quality standard yet the permit did not include a permit limitation (15, 40, 41, 44, 48). In some of these cases, the permit would require additional monitoring instead of a permit limit. ODEQ must include limitations in permits when a facility is found to have a reasonable potential to cause or to contribute to an exceedance of a standard (40 CFR 122.44(d)(1)(i)).

Receiving water characterization data is seldom available to the Oregon permit writer when evaluating a permittee's discharge. Knowing the receiving water concentration, particularly background data, is necessary when evaluating the impact of the discharge to the receiving water. When no data is present, the permit writer assumes the

concentration is zero which may result in underestimation of the impact from the discharge. ODEQ should require permittees to collect background data as a condition of the permit in order to support water quality-based permitting analysis. Some permits have been issued recently with receiving water monitoring requirements. ODEQ should establish a policy for requiring receiving water monitoring conditions based on factors such as facility size and type and receiving water conditions.

Complete effluent characterizations are not always included in the record as required by federal rules for NPDES applicants. Federal regulations at 40 CFR 122.21 specify the application requirements for publically-owned treatment works with design flows greater than 1 million gallons per day (mgd) or for those facilities with a pretreatment program. Both of these categories are required to submit valid whole effluent toxicity (WET) testing data as part of their permit applications. Non-municipal dischargers categorized as "primary industries" also have mandatory testing requirements for toxic pollutant (see 40 CFR 122.21 Appendix D Table I and II). WET data and toxic pollutant scans were seldom found in the Oregon NPDES permit records as required by federal regulation.

Finally, many permits in the state are being reissued based on old mixing zone study results (greater than 10 years). Often the dilution value or mixing zone dimensions are provided in the evaluation report but documentation of modeling is no longer a part of the record. ODEQ should update mixing zone information where appropriate. EPA did review a few records of recently issued permits which included updated mixing zone analysis.

In summary, reasonable potential calculations for publically-owned treatment works should be routine for parameters commonly associated with treated domestic waste such as: chlorine, ammonia, pH, and all metals for cities with a pretreatment program. EPA procedures following the 1991 Technical Support Document should be developed and implemented consistently across the state. ODEQ permits seldom require permittees to collect receiving water data as a condition of the permit. Such data is necessary in order to support water quality based permitting analysis and to determine point source impacts on the receiving water. By not adequately assessing the effect of a discharge on the receiving water, permits may be issued in Oregon that are not protective of state water quality standards.

2. Industrial Permit Issues

The EPA review team found two opportunities for improvement specific to the industrial class of permits: 1) Include water quality-based analysis for industrial permits, and 2) update the basis for determining technology-based limitations. EPA did review some industrial permits that include water quality-based permit conditions. These permits were analyzed for compliance with water quality criteria in the receiving water or they included a condition from a TMDL in order to correct receiving water impairment (17, 22, 45). However, some industrial permits either lack water-quality based analysis or include narrative statements that technology limits are sufficient to meet state water quality standards without providing analysis (10, 21, 24, 25, 42). Water-quality based permitting needs to be a routine element of industrial permits along with the

determination of technology-based limits.

Many industrial permits contain technology-based limitations which have been carried forward from the previous permit. These technology-based limitations are often based on outdated estimates of production at the facility. When reissuing an industrial permit, ODEQ should update technology-based effluent limitation calculations to reflect current actual production (40 CFR 122.45(b)). EPA also found that when limitations are carried forward, documentation of how the limits were derived is often not carried forward in the record (24, 37, 43). These calculations should be part of the current record.

3. Documentation

EPA found that of the fifty-five NPDES permit records that were reviewed, most records were found to be in good order and of acceptable quality. One area of the records that needs improvement is the documentation of permit limit derivation. The EPA review team at times had difficulty in reproducing effluent limitations from the information in the permit evaluation report. This was most often a problem when the limitation is carried forward from a previous permit cycle. In this case, the limit is transferred to the new permit but the derivation may not be carried forward in the permit evaluation report. Previous evaluation reports are not always in the record. This lack of documentation was also noted with mixing zone information. The record would often include dilution ratios of the effluent to the receiving water and the record would reference modeling done some years previous but documentation of the modeling is no longer present in the file. ODEQ needs to place greater emphasis on documenting derivation of permit limits. A third party should be able to reproduce the limitations from data and procedures provided in the permit evaluation report.

4. Wet Weather

EPA's review of wet weather issues in the ODEQ's NPDES permit program focused on municipal wastewater collection and treatment and storm water. Issues related to runoff from Concentrated Animal Feeding Operations (CAFOs) were not addressed because EPA has been informed that Oregon intends to transfer the authority to administer the CAFO portion of its NPDES program to the Oregon Department of Agriculture (ODA). (Pursuant to 40 CFR 124.62(c), ODA is not authorized to administer a CWA CAFO program until this NPDES program revision is approved by EPA).

a. Municipal Wastewater Collection and Treatment Issues

- **Permitting of Sanitary Sewer Overflows**

  Sanitary sewer overflows (SSOs) are untreated or partially treated sewage overflows from a sanitary sewer collection system. ODEQ's municipal permits frequently authorize SSOs through emergency overflow outfalls. ODEQ's approach is taken from state regulation which allows overflow discharges during certain prescribed infrequent high rainfall events.

Occasional unintentional SSOs occur due to a variety of causes. EPA believes that all separate sanitary sewer systems have the potential to have occasional SSOs. However, SSOs may be indicative of chronic problems with the collection system such as improper operation and maintenance, excessive inflow or infiltration (I/I), or inadequate capacity.

Discharges from municipal sanitary sewer systems are prohibited unless authorized by an National Pollutant Discharge Elimination System (NPDES) permit. Permits authorizing discharges from such systems must contain technology-based effluent limitations based upon secondary treatment and, to the extent that the discharge is at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of water quality standards, appropriate water quality based effluent limitations, in numeric and/or narrative form.

Alternatively, permits may characterize discharges from municipal sanitary sewer systems as "bypasses" subject to conditions consistent with those governing "bypass" at 40 C.F.R. § 122.41(m). Among other things, those provisions prohibit bypasses unless there are "no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime." In addition, adequate back-up equipment should be installed in the exercise of reasonable engineering judgment to prevent a bypass. The "no feasible alternatives" provisions of 40 C.F.R. § 122.41(m) require, among other things, that consideration be given to the feasibility of additional construction for any bypasses that occur because of inadequate capacity.

ODEQ uses a design storm approach as a basis for allowing SSOs. EPA's concern is to assure that ODEQ's permitting approach will result in all discharges from the sanitary sewer system meeting secondary treatment and water quality-based requirements, or will result in such discharges that are approvable under the bypass regulation. EPA intends to continue discussions with ODEQ about what measures ODEQ should be taking to assure that these results are attained. These measures should include a full range of options, including infiltration and inflow removal, collection system management operation and maintenance, as well as providing adequate storage, conveyance, and treatment capacity.

In addition, the authorization of SSOs in Oregon permits appears to contradict ODEQ's EPA-approved water quality standard for bacteria which prohibits the discharge of raw sewage. ODEQ's Raw Sewage Prohibition states: "No sewage shall be discharged into or in any other manner be allowed to enter the waters of the State unless such sewage has been treated in a manner approved by the Department or otherwise allowed by these rules." ODEQ does not agree with EPA's interpretation of the State standards. Continued discussion between EPA and ODEQ are necessary to resolve the issue.

- **Addition of New Sanitary Sewer Emergency Overflows**

Some ODEQ permits allow the addition of new emergency SSO outfalls during the life of the permit without permit modification. Permits should not allow the addition of new outfalls (including emergency SSO outfalls in this case) on the five year permit cycle without a major modification.

- **Lack of Monitoring During Blending Events**

Some facilities in Oregon practice blending during wet weather events. In some cases, the blending scenario is recognized in the permit, other times only in the fact sheet, but most often it is only addressed as part of ODEQ's treatment plant facility review process.

EPA developed a proposed blending policy to provide clear, nationally consistent guidance to the interpretation of the NPDES regulations as they relate to the practice of blending. The comment period for the proposed policy closed February 9, 2004.

EPA's review of ODEQ permits found that where the blending scenario is recognized in the permit or fact sheet, the document would state that water quality standards must be met during blending. However, no permit required specific monitoring during the blending events. In order to ensure compliance with effluent limitations, permits should require monitoring to yield data which is representative of the final blended discharge. In addition, permits should require reporting of the date and volume of blended discharges along with appropriate pollutant parameter concentrations. This is to ensure that if blending is used by a municipal sewage treatment facility, it is used in a way that is fully protective of human health and the environment. More comprehensive monitoring may be required for discharge to sensitive waters.

- **Lack of Monitoring of Wet Weather Outfalls**

The review identified one permit with a permitted wet weather outfall at the treatment plant. Although this permit contained effluent limitations for the outfall, no monitoring was required. Without monitoring, ODEQ is unable to determine compliance with the effluent limits. Furthermore, NPDES regulations at 40 CFR 122.44(i)(2) require that facilities monitor, at a minimum frequency of once per year, those outfalls with effluent limitations.

- **Lack of Water Quality Impacts of Wet Weather Discharges**

None of the permits authorizing discharges of blended effluent or from wet weather outfalls contained an evaluation of potential water quality impacts associated with these discharges. The fact sheets should include an analysis to investigate the environmental and human health impacts of these discharges.

- **Less Restrictive Percent Removal During Wet Weather**

As discussed in the Water Quality Based Permitting Section (above), some permits allow less restrictive 30-day average percent removal requirements during wet weather flow. In some cases, the basis provided in the fact sheet is just a reference to 40 CFR 133.103(d). The regulations at 40 CFR 103(d) allow lower 30-day average percent removal requirements only if the permittee demonstrates that criteria in 133.103(d) are met, including that the less concentrated influent is not the result of excessive I/I. It is recommended that the fact sheet clearly document that the criteria for the lower percent removal requirements are met.

b. Storm Water Permits

EPA interviewed staff assigned to work on storm water issues at ODEQ Headquarters and, to a limited degree, staff at the NW Regional office. ODEQ commits 5.5 FTE to implementing the NPDES storm water permit program covering industrial, construction and municipal storm water discharges.

ODEQ issues general NPDES permits to authorize discharges from industrial activities and from construction activities, in accordance with federal regulations and state discretion. The program has issued two additional general permits which are tailored specifically to storm water discharges associated with mining/quarrying of nonmetallic minerals, and to discharges from industrial activities which enter the Columbia Slough. As previously mentioned, approximately 2014 facilities are authorized through six general permits addressing various aspects of stormwater.

ODEQ has made strategic choices to best administer the NPDES storm water program in order to leverage its limited staff resources. For example, the ODEQ 1200-C permit for construction-related discharges (issued in early 2001) was written such that it automatically applied to "small construction sites" as of December 2002, in compliance with the federal "Phase II" storm water regulations, thus allowing ODEQ to avoid issuing a separate construction general permit for sites disturbing 1-5 acres. ODEQ has also elected to use Memorandums of Agreement with local governments to share administrative responsibilities (and associated permit fees) for the industrial and construction permit programs. These agreements allow ODEQ to focus its inspection and compliance staff resources on the highest priority sites, while maintaining its full NPDES permitting and enforcement authority.

ODEQ has issued six individual permits for discharges from municipal separate storm sewer systems (MS4s) which are considered to be "large municipalities" according to the federal "Phase I" storm water regulations. A seventh individual permit for the Oregon Department of Transportation is scheduled for 2005. A number of smaller municipalities are required to obtain permits as dictated by the "Phase II" storm water regulations. In light of a recent court decision from the 9th Circuit Court of Appeals, ODEQ plans to issue individual permits for the approximately 18 jurisdictions that are considered "small MS4s" under the Phase II regulations. Over the last two years, ODEQ has coordinated extensively with

MS4 permittees, operators and other stakeholders to allow for smooth transition and implementation of this program statewide.

Training and outreach for the regulated community is a priority for the ODEQ storm water program. Using a $156,750 grant from the EPA's national Office of Enforcement and Compliance Assistance, ODEQ will train state and local inspectors on erosion prevention and sediment control requirements, and provide direct assistance to municipalities needing to develop appropriate storm water management programs. Over the next year, ODEQ will also be working to refine its statewide guidance materials for inspectors, local government and construction site operators. ODEQ's leadership in providing such training is crucial to ensuring these runoff control measures for construction and municipal operators implemented consistently in the future.

During this program review, EPA staff examined the permit files for three expired MS4 permits (53, 54, 55). EPA finds that ODEQ's practice of incorporating by reference the MS4 applicants' required Storm Water Management Plans into the permit text(s) does not provide a sufficient level of detail to ensure that the permit's requirements are clear and enforceable. For example, the permits EPA reviewed did not contain explicit schedules for storm water program implementation, or specific reference to activities to be conducted by the permittee(s). At the time of the EPA review, ODEQ was preparing to reissue the five municipal separate storm sewer system permits for entities in Western Oregon. EPA provided formal comments during the public comment period on these draft MS4 permits. ODEQ staff acknowledged EPA's concerns and have attempted to increase the level of program detail in the reissued MS4 permits. EPA remains concerned that ODEQ's MS4 permits do not contain sufficient detail to ensure that the permits' requirements can be understood by the permittees, the public, or the regulatory agencies.

5. Summary of Water Quality-based Findings

- Permit quality has improved since the last comprehensive EPA program review in 1995. ODEQ has made some progress on issuing permits that are protective of Oregon water quality standards although more needs to be done as highlighted below.
- Water quality-based permitting procedures are not applied consistently across the State. The frequency of water quality-based permits also varies across the regions.
- Publically-owned treatment works are not routinely evaluated for their potential to contribute to water quality standard exceedances for parameters commonly associated with treated domestic waste such as: ammonia, pH, and all metals for cities with a pretreatment program.
- Receiving water data is not generally available for analysis of water quality impacts. ODEQ should require permittees to collect ambient background data as a condition of the permit in order to support water quality based permitting analysis.
- ODEQ must include water quality-based effluent limitations in permits when a facility is found to have a reasonable potential to cause or to contribute to an

exceedance of a standard.

- Documentation of permit conditions in the administrative record needs to be improved.
- Mixing zones are often outdated. ODEQ should update mixing zone information.
- Recently issued pulp and paper permits meet federal technology-based requirements.
- ODEQ has developed the ability to run various water quality models to support permitting including mixing zone analysis and fate and transport. This ability varied across the regions.
- For some industrial permits, technology-based effluent limitations for industrial permits are outdated. ODEQ should update technology-based effluent limitation calculations in the industrial permits to reflect current actual production at the facility.
- Water-quality based permitting needs to be a routine element of industrial permits along with the determination of technology-based limits.
- ODEQ uses a design storm approach as a basis for allowing SSOs. EPA's concern is to assure that ODEQ's permitting approach will result in all discharges from the sanitary sewer system meeting secondary treatment and water quality-based requirements, or will result in such discharges that are approvable under the bypass regulation.
- Permits should not allow the addition of new outfalls (SSO in one example) without a major modification of the permit.
- Permits should require monitoring and reporting of volume and pollutant concentrations during blending events at municipal facilities. Likewise, monitoring should be required during discharges from wet weather outfalls.
- With limited staff, ODEQ does a commendable job of interacting with the regulated community of storm water dischargers through strategic program implementation and stakeholder involvement.
- ODEQ's municipal storm water permits should specifically detail the unique elements of the applicant's storm water management program in order to provide enforceability and accountability within the individual permit documents.

C. Compliance/Enforcement

As mentioned previously, ODEQ is organized through a centralized headquarters office located in Portland and three decentralized regional areas in the Northwest, Western and Eastern Regions. The regional areas are comprised of numerous smaller branch offices in each region. These branches are responsible for informal enforcement of the NPDES Permits. Within the Eastern and Northwest regions, compliance officers are also the permit writers; within the Western region, the staffing of compliance and permit writing functions are separated.

Regional offices handle informal enforcement actions while the headquarters office handles formal enforcement actions as described in ODEQ's Enforcement Guidance for Field Staff (Enforcement Guidance). Informal actions include notices of noncompliance, letters, phone calls, and compliance assistance. Formal actions include actions to assess civil penalties, MAOs, Notice of Permit Violations and other Orders that may be appealed through the contested-case process. The Enforcement Guidance outlines the procedures used to determine when a formal action is warranted. Once a determination is made that formal action is warranted, a compliance officer will develop the case by collecting all necessary supporting evidence. This case development package is then forwarded to the Office of Compliance and Enforcement (OCE) in headquarters who follow up with the formal enforcement action.

Compliance officers within the regional offices also develop MAOs through discussions with the permittee. MAOs are consent orders and as such require negotiation of reasonable requirements and timelines. Generally, MAOs are used if the facility is unable to meet its current permit limits or will not be able to meet its renewal permit limits and the time needed for studies, infrastructure repair, or facility upgrade will be longer than six months. Once a draft MAO is created, the regional office sends it to OCE to be reviewed by legally-trained staff for lawfulness, enforceability and consistency. Upon approval by OCE, OCE will assign a docket number. At that point the MAO will be conveyed to the permittee for signature and subsequently executed by the Administrator of the Region. These MAOs always include compliance schedules of varying lengths as well as stipulated penalties which facilitate later enforcement of the MAO requirements.

1. Lack of an Adequate Data Management System

ODEQ currently lacks an adequate data management system to track compliance and enforcement actions. This is a significant program deficiency that inhibits a comprehensive evaluation of ODEQ's enforcement and compliance program. A data management system provides a valuable tool for permit compliance staff by insuring all non-compliance events are recorded and readily available. While the current system successfully tracks permit dates, it is unable to track compliance with permit conditions over time. As a result, ODEQ, EPA, and the public are unable to readily determine the overall compliance of NPDES-permitted facilities in Oregon.

A complete and accurate data management system would not only allow ODEQ to track

the overall compliance of permitted facilities, but it would ensure that all violations are addressed when taking an enforcement action. Currently, compliance officers must do a time-consuming comprehensive file review to ensure that all violations are included in the case development package. There is no way for OCE to insure all the violations are being addressed through the proposed enforcement action.

Since the review, ODEQ has developed an effluent data tracking system and have committed to inputting their permits and effluent data into PCS. At this time these systems are not being populated with actual data. The DEQ is currently redesigning its Notice of Noncompliance database into a comprehensive state-wide compliance database to track inspections that result in formal or informal enforcement actions, violation status and resolution, provide templates for notice letters or referral documents, and track compliance schedules. ODEQ's overall goal is to link all their databases to provide a tracking mechanism from complaint or inspection through resolution of enforcement action.

2 Timely Enforcement Actions

The Enforcement Guidance establishes an ambitious goal of 55 days from the date that all information is in place to make a enforcement case to the day an action is sent to the Director of ODEQ. In the review, OCE provided a Timeliness Summary from its Enforcement Tracking Database for 2003. During interviews with OCE, it was stated that the average case took approximately 90 days from submittal of a case to OCE to issuance of the complaint. One action took 162 days from completed inspection to Directors signature. Some of the timeliness summary reviews do not indicate when the violation occurred or whether all violations at a facility are included in the complaint. The new Division 12, which are going before ODEQ's Commission on December 9th, shall clarify that warning letters or pre-enforcement notices for documented violations are not required prior to taking formal enforcement action. Evaluation of compliance to ODEQ's rule was not possible because no tracking database exists for NPDES violations in the State of Oregon.

ODEQ is currently tracking their timeliness data as an internal ODEQ measure. The data will be evaluated toward the end of 2004. At which point the ODEQ executive management team will discuss the issues that appear around case timeliness, assess the opportunity for process improvement efforts, evaluate resource commitments and make a decision about revising our case completion goal.

While ODEQ continues to work on ways to improve the celerity of their cases, EPA acknowledges that ODEQ's average cases and the specific case identified in the review are both within the 90 to 180 day timeliness goals of EPA's Policy.

3. Consistent Formal Enforcement Actions

OCE issues all civil complaints after receiving a case package from a regional office. OCE also provides a "docket number" for MOA's provided by the Regions (Interviews revealed that this is not always conformed to by the Regions). By having one office, OCE,

handle all civil complaints, a significant level of consistency is achieved in enforcement actions. Review of OCE's enforcement actions confirmed that actions taken against NPDES permitted facilities are consistently prepared. Some examples include the municipality sector which are routinely issued MAO's for violations. These MAOs may include Supplemental Environmental Projects, increased interim effluent limits, and/or extended compliance schedules. The civil complaints issued to municipalities, when issued for a violation, have low proposed penalties for relatively significant violations. Although the method for determining the amount of penalty followed the OAR 340-012 rules, many complaints did not include previous violations. The SEPs are consistently applied, although not i conformance with EPA's SEP policy. Compliance schedules are incorporated to provide time for the municipalities to obtain funding and complete construction. Compliance schedules sometimes extend beyond the expiration date of the permit, or don't have defined end dates. Often the MAOs address a specific effluent exceedance, such as residual chlorine, but do not address other violations, such as SSOs. For example, a municipality has an MAO for increasing the residual chlorine limit via an interim effluent limit, but the MAO does not mention numerous SSOs or percent removal violations (permit file # 26). The MAO was issued on August 21, 2003, the same date the City received a new NPDES permit. (No explanation why the new permit did not contain interim limits to allow the facility to install equipment to meet the new water quality based effluent limit for residual chlorine.) The City had experienced multiple SSO's in the year 2003 (1/20/03, 3/24/03, 5/7/03, 5/30/03, 7/28/03), but the MAO made no mention of these violations. In addition, the only Notice of Assessment of civil penalty was in April 2001 for a proposed $3,900 fine for the discharge of 58,000 gallons of raw sewage on October 18, 2000. There was no record of formal enforcement on a 3.5 - 4.5 million gallon sewage release on September 27, 2000. Other Municipality files reviewed had similar issues (26, 28, 29, 31, 33, 38, 56, 57, 58).

4. Comprehensive Case Development Packages

Permit/compliance officers collect supporting evidence and provide the information necessary for OCE to issue a formal enforcement action for violations. The Enforcement Guidance outlines the steps and describes the required information for these case development packages. These packages are reviewed by OCE for completeness. At that point OCE staff reevaluate the evidence and determine which violations may be pursued, recommend an enforcement strategy, and draft the Notice of Violation and other formal enforcement documents for review. After those documents are approved by the inspector, the regional manager, the regional administrator, the senior policy advisor for OCE and the OCE administrator, the package and documents are forwarded to the director for signature. The packages reviewed appeared complete, with the exception of a reasonable assessment of economic benefit. The case development process provides for internal accounting of comments/revisions to the documents as well as tracking the progress of the action. Again, without a comprehensive database for violations, a determination of whether all violations were addressed is not possible.

5. Communication with the Regulated Community

Compliance assistance provided by ODEQ staff and communication with the regulated

community is a strong element of ODEQ's NPDES compliance program. ODEQ staff are familiar with the facilities they regulate, and this gives them the ability to discuss problems and issues as they arise and provide assistance to other facilities with similar problems. It may help in issuing enforcement actions in a timely manner because the compliance officer is familiar with a facility and can anticipate when compliance needs to be addressed through enforcement versus compliance assistance.

6. Failure to Calculate Economic Benefit when Assessing Penalties

Whenever a civil penalty is assessed, the economic benefit of noncompliance should be calculated. Assessing civil penalties that exceed the economic benefit of non-compliance is crucial to ensuring that violators do not have a financial incentive to violate the law. If civil penalties do not exceed economic benefit, violators essentially profit from polluting. Under certain circumstances, economic benefit may be *de minimus* and may not warrant being added to the penalty. However, an analysis of economic benefit should always be made to determine whether it is, in fact, *de minimus*. This analysis should be included in the case development package.

EPA's review of ODEQ's enforcement actions revealed that economic benefit was not always evaluated. Out of thirteen enforcement actions reviewed (25, 26, 33, 51, 52, 56, 57, 59, 60, 61, 62, 63, 64), nine stated there was either no economic benefit or there was insufficient information available to make a determination. Economic benefit calculations were only considered for four of the actions reviewed (59, 60, 62, 63). EPA offers several courses on the calculation of economic benefit (e.g., CST103: Basic BEN Training, CST306: Advanced Course on Economic Benefit of Noncompliance). The internet is also a valuable tool for researching the costs to facilities for coming into compliance. A simple but very successful tool used in evaluating economic benefit is by directly asking the facility the cost associated with certain treatment technologies, especially what it would cost to implement them.

7. Over Reliance on Mutual Agreement and Orders (MAO)

MAOs are ODEQ's equivalent to the administrative compliance orders EPA issues pursuant to Section 309(a) and (g) of the Clean Water Act (CWA). In certain cases MAO may be an appropriate tool to place a non-compliant facility on a schedule for coming into compliance with its NPDES permit. MAOs may also be appropriate when used in conjunction with civil penalties. However, ODEQ's MAOs do not appear to be applied consistently across the state. Also, terms of many of the MAOs EPA reviewed are inconsistent with the CWA. EPA noted the following deficiencies: (1) compliance schedules were too long; (2) interim limits for parameters in noncompliance were too lenient; (3) final compliance dates in some MAOs are uncertain; and (4) addenda to interim and final dates appear frequently. Not every MAO had all of these deficiencies. Some MAOs had none of these deficiencies.

In at least one MAO, the final compliance date in the MAO was written for the facility to come into compliance with effluent limits five years after the completion of a TMDL (9). If a compliance date is tagged 5 years after a yet to be developed TMDL is completed, the

actual date of compliance is unknown, not to mention that the facility is not necessarily complying with waste loads in the TMDL. Compliance schedules imposed by MAOs should be established with reference to specific dates and be limited to reasonable lengths of time.

In some cases, the interim limits in an MAO were very lenient and even inappropriate. For some POTWs, the facility was to achieve interim limits that were "as low as practicable" (e.g. BOD, TSS), or to achieve limits "as high as practicable" (e.g. BOD percent removal). Interim limits should rarely be used and should have sound scientific basis. In some instances a facility had compliance schedules to meet technology based effluent limits, which is prohibited by the CWA. MAO's do not alter the respondents responsibility of complying with their NPDES permit, but imply that no enforcement actions will result for violations of actual permit conditions.

A majority of the MAOs reviewed by EPA included numerous addenda extending interim limits and final compliance dates. These addenda were typically in the form of letters written to the facility and placed in the file. EPA is concerned with the number of addenda issued and the way they are issued. The use of so many addenda for one MAO gives the appearance that they are not to be taken seriously, and that ODEQ would probably not enforce them. As a result, facilities may not be overly concerned about complying with either their NPDES permit or MAO. In addition, it was often difficult to determine an MAO's final compliance date because the addenda were issued as letters and could easily be misfiled. This last problem may be corrected by having a complete and accurate data management system.

Other MAOs reviewed by EPA raised similar concerns (1, 8, 9, 28, 38).

It is recommended that ODEQ develop a more explicit and comprehensive statewide policy on how to develop MAOs, their conditions, and appropriate schedules. This would create a consistency between regions that is currently lacking. It may also provide more stringent requirements of when an MAO is appropriate and when and how it can be modified.

8. Lack of Sanitary Sewer Overflow (SSO) Enforcement

See Section III.B.4 Wet Weather, for EPA findings related to permitting of SSOs. After review of enforcement records, EPA generally found a lack of enforcement actions associated with SSOs in Oregon, considering the significant number of publicly-owned treatment works that reported SSOs.

9. Inappropriate use of Supplemental Environmental Projects

ODEQ's Supplemental Environmental Projects (SEPs) are inconsistent with EPA's SEP policy. However, they are not required to follow EPA's policy. A major concern with a SEP was a facility being granted credit for a project that needed to be done to ensure

compliance with their NPDES permit (61). The permittee was given SEP credit for installing screens to ensure that plastics would not plug their settlement pond pumps. The violation was an unpermitted discharge of wastewater caused by plastic plugging the settlement pond pumps. Although several other actions were taken by the company and ODEQ did not feel that the screens were a necessary action to take, the installment of screens ensured that the facility would not cause the same violation. Installing equipment to ensure a facility does not have the same noncompliance in the future could be considered inappropriate use of SEP credit.

10. Lack of OCE Guidance and Oversight

OCE needs to provide more guidance to regional offices to ensure enforcement is consistent throughout the state. The OCE administrator does provide enforcement issue and consistency feedback to the Regional Division Administrators. EPA recommends ODEQ consider a mechanism for incorporation of enforcement issues, relative to Permit language and OCE's evaluation of statewide enforcement trends, would provide an additional source of information for setting priorities. OCE also needs to develop consistent guidance in areas that lack any guidance at all. ODEQ inspectors and permit writers would also benefit from keeping existing guidance current.

11. Lack of Training

ODEQ does not appear to offer any formal training and little informal training to its compliance and enforcement staff. As a centralized office, OCE is in a position to create consistent training requirements for all compliance officers within the state. EPA recently published Memorandum 3500.1. This memo requires a minimum level of training that inspectors need in order to receive EPA credentials and to be able to perform compliance inspections. While ODEQ is not required to follow EPA memo 3500.1, an adequately trained compliance and enforcement staff is necessary to implement an effective compliance evaluation program. As an example, EPA requires the following training for its inspectors as stipulated in 3500.1:

- 24 hours of Occupational Health and Safety Training
- Basic Inspector Curriculum - This is a 24 hour class offered by EPA.
- 24 hours of program specific training
- 2 (8 hour) days of on-the-job training, or two compliance inspections/field investigations
- Annual 8 hour refresher of Occupational Health and Safety Training
- Each supervisor is responsible for setting up a required amount of time for annual refresher of program specific training.
- The supervisor of each compliance officer/inspector is responsible for signing off upon the completion of training.

12. Summary of Compliance/Enforcement Findings

- Timely enforcement actions. ODEQ did not routinely meet their self imposed goal of issuing enforcement actions within 55 days of receipt of case packages from the

regions. ODEQ's timeliness goal is not tied to the date of violation. ODEQ's timeliness does meet the goals set for EPA enforcement actions.

- Consistent formal enforcement actions. Without a statewide database to evaluate all violations and the enforcement actions it was not possible to do a comprehensive review of this area. It appears that municipalities receive lower penalties than industry, which is not inconsistent with EPA's Interim Clean Water Act Settlement Penalty Policy.
- Comprehensive case development packages. Case development packages are consistently developed. Without a statewide database for tracking violations it was not possible to determine whether the packages were comprehensive relative to all violations which may have occurred at a facility.
- High level of compliance assistance and communication with the regulated community. Staff regulating (Permitting and Compliance) were knowledgeable and familiar with their designated facilities and industries.
- Lack of an adequate data management system and need for an uplink to EPA's Permit Compliance System (PCS). This finding was identified in previous reviews, but not addressed by ODEQ adequately. Lack of a database prevents EPA, ODEQ the public, and the regulated community from verifying compliance and permitting status, violation trends, consistent enforcement and permitting limits across the state, regions, or industry sectors without conducting lengthy and inefficient file reviews.
- Failure to calculate economic benefit into penalties. Penalty calculations do not always assess economic benefit. Of the thirteen files reviewed, nine stated there was no economic benefit or there is insufficient information to assess economic benefit.
- Over reliance on MAOs to meet permit requirements. MAO's are routinely used to provide more lenient limits or schedules to comply with permits. MAO's are often amended multiple times when a facility has failed to comply with the original schedule.
- Lack of Sanitary Sewer Overflow (SSO) enforcement. SSO's are not enforced against, in some instances they were permitted.
- Inappropriate use of Supplemental Environmental Projects (SEP). SEPs have been applied for actions which would otherwise be necessary to be in compliance.
- Lack of OCE guidance oversight. Insufficient statewide guidance for doing enforcement actions, such as calculating economic benefit, use of SEP's, use of MAO's.
- Lack of training. Insufficient training available, or utilized by staff for inspectors, permit writers, compliance officers, and PCS.

APPENDIX A
Findings from EPA's 1995 and 1999 Reviews of Oregon's NPDES Program

Excerpt from the 1995 Report:

"RECOMMENDATIONS

The following are recommendations of the audit of the Oregon Department of Environmental Quality's NPDES program.

Programmatic

1. Decentralization of ODEQ into three Regions does not appear to have adversely affected the implementation of the NPDES program. It appears the program is working closer to the regulated community which results in faster decisions. It should be noted however it appears decentralization has resulted in a further decentralization of the water quality manager's responsibilities in the Eastern and Western Regions. In the Eastern Region, the responsibility is split between the Pendleton and Bend offices and in the Western Region, the split is between the Salem/Eugene office and the Medford office. It is recommended that ODEQ Headquarters assess this split in responsibilities to determine if there is a potential loss of effectiveness in the program in these two Regions.

2. The ODEQ has developed a permit writers guide for municipal permits. It is recommended that the guide be expanded to include industrial permits.

3. It is recommended that permit writers training be centralized in the ODEQ Headquarters office.

4. In accordance with the memoranda of agreement for issuing general NPDES storm water discharge permits for construction activities, it is recommended that ODEQ conduct a "random sampling of the permitted activities" being conducted in the Eastern and Western Regions "to determine the degree of compliance and environmental benefit" of the program being implemented by the cities and counties in these Regions.

5. In order to ensure a consistent approach in setting priorities for the issuance of permits, it is recommended that the ODEQ Headquarters office provide guidance to the Regions on setting such priorities.

Permits

1. The State needs to continue to move toward water quality-based permitting. Mixing zone studies should be completed as expeditiously as possible and those results should be used to develop limits for future permits. The State should also develop a consistent approach to gathering and evaluating data to determine whether water quality-based limits are needed. Specifically, the State needs to develop a policy regarding data that shows a discharge has reasonable potential to cause or contribute to an exceedance of water quality standards at the edge of the mixing zone. This policy should account for other point and non-point sources of the pollutant, as well as variability of the pollutant in the effluent and sensitivity of the test species (for whole effluent toxicity).

2. It is recommended that ODEQ appoint a WET coordinator.

3. The industrial General Conditions should be updated to include the appropriate language from 40 CFR 122.42(a).

4. The Regions need to ensure that permit applications are complete. Permit applications are an important source of data for conducting reasonable potential evaluations and determining where additional data should be collected. Looking only at whole effluent toxicity data to determine whether reasonable potential exists is not sufficient.

5. As required by 40 CFR 122.44(d), water quality-based limits must be included in permits when pretreatment data show that the discharge has reasonable potential to cause or contribute to an exceedence of water quality standards. Relying solely on local limits does not meet federal requirements.

6. The Permit Evaluation Reports should fully discuss the basis for all permit limits, as well as including an evaluation of whether reasonable potential exists.

NPDES Compliance and Enforcement

1. There is no database being used to store DMR measurements or flag violations. Each Regional Office should have as a minimum one computer station with modem so that PCS can be used. EPA R10 can provide an overview for the benefits and capabilities of PCS. Training is also available for more extensive use of the system.

2. Although the decentralization of ODEQ has placed more staff in the field, it seems to have increased the multiplicity of their duties. It is recommended that additional resources be placed in the field to minimize the multiplicity of duties.

3. There did not appear to be a clear overall strategy for compliance/enforcement activities—while everyone said they had more work than could be done, no one had a clear definition of how priorities are set for working with the regulated community. It is recommended that a strategy for compliance/enforcement activities be developed. It should be noted that ODEQ's matrix used for setting inspection priorities is good and should be part of the overall strategy.

4. The ODEQ Headquarters staff (i.e. Judy Johndohl) is to be commended for setting up bimonthly training sessions for all the Regional Offices. Every office was highly complimentary of the training and commented that this was not done in the past. One problem noted, however, that since the training is rotated among offices, a shortage of travel dollars is a problem. Since the training schedule is set up in advance, it is recommended that the travel money be targeted at the same time.

5. The State needs to review its enforcement procedures to assess whether every violation needs to be addressed through a Notice of Noncompliance (NON)."

Excerpts from the 1999 Evaluation Report of the Compliance Program Review:

"...This review covered two areas: "Timely and Appropriate Response to Significant Violation," and "Accurate Record Keeping and Reporting."...

"**Finding** - *The enforcement response is inconsistent among the ODEQ Regions and often does not follow ODEQ or EPA policy*."

"**Finding** - *ODEQ does not adequately track enforcement actions and has not maintained the PCS system*."

"Recommendations - ODEQ needs to implement a computer tracking system to efficiently monitor compliance. This system must be able to electronically upload reports to PCS. According to Judy Johndohl a project is being developed to have facilities electronically report information. This would provide data that is accurate, reliable, and complete, this data would be reported to the national data systems Permit Compliance System (PCS).

A computer tracking system will have a number of benefits:

It will allow ODEQ management to assure the time lines and the responses in the November 1995 Enforcement Guidance are met.

It will result in a more efficient use of staff resources at both ODEQ and EPA.

It will improve the quality of the compliance information available to ODEQ, EPA, and the general public.

The above recommendations are essentially the same as those in the previous program review conducted in 1995...."

APPENDIX B
Review Tools

EPA Information Request Letter
EPA Checklist used for NPDES File Reviews
Entrance Questions for Regional Office Visits
Example Permit Writer Interview Questions

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

November 13, 2002

Reply To
Attn Of: OW-130

Mike Llewelyn
Administrator
Water Quality Division
Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204-1390

Dear Mr. Llewelyn:

Our current Performance Partnership Agreement includes a Department of Environmental Quality (ODEQ) commitment to work with EPA to undertake a review of the Oregon National Pollutant Discharge Elimination System (NPDES) permit program in order to assess its strengths and weaknesses. Representatives from our NPDES Permits Unit recently met with you and your staff to discuss a strategy and a timeline for the review. The purpose of this letter is to formally initiate the review of the NPDES permit program and to request that ODEQ submit various programmatic documents to EPA. The documents and other requested materials are listed in the enclosure. The requested information will provide EPA with an overview of ODEQ's NPDES permit program and guide the next steps of the review. A response to this request within 30 days would be appreciated.

I want to be clear regarding EPA's motivation for conducting an NPDES program review at this time. The review is a routine evaluation of the program as part of EPA's responsibility under the Clean Water Act to provide oversight of the program. It has been more than seven years since EPA last conducted an NPDES program review in Oregon. One issue which we are particularly interested in as we begin this review is the NPDES permit backlog of expired permits. The backlog of NPDES permits across all states is a national issue which has received Congressional attention. Our goal is to quantify and understand the backlog in Oregon and provide suggestions to reduce the backlog as necessary.

Thank you in advance for providing the requested information. We look to the review of the program as an opportunity for the Region to evaluate, learn, and discuss NPDES issues with ODEQ. The exchange of technical information and policy issues will benefit both agencies.

If you have questions regarding this information request please call Bob Robichaud, our NPDES Permits Unit Manager, at (206) 553-1448, or Mike Lidgard of his staff at (206) 553-1755.

Sincerely,

/s/ Randall F. Smith

Randall F. Smith, Director
Office of Water

cc: Mike Kortenhof, ODEQ

Enclosure

Enclosure
OR NPDES Program Review
Initial Information Request

5/7/03
STATUS:

Submit copies of all applicable State statutes and regulations including those governing State administrative procedures.

Submit a description of the scope, structure, coverage and processes of the program. Include a description of the decentralized nature of the program, the roles of regional offices versus the central office, and ODEQ's efforts to issue permits by watershed. Also describe the data management system that ODEQ uses to track permits including compliance.

Submit a description of the agency resources to administer the program during the state fiscal year 2002-2003 biennium including:

A description of the staff resources (number of staff, general duties, regional and central office responsibilities).

An estimation of the costs to administer the program.

An itemization of the sources and amounts of funding to administer the program.

Submit a description of State permit writing procedures including water-quality based permitting, State administrative or judicial review, and enforcement procedures.

DONE Submit copies of standard NPDES permit forms used by the program including application, reporting, and inspection forms.

Submit a description of the State compliance tracking and enforcement program.

DONE Provide a list of permits issued, reissued, or modified over the period of January 1, 2000 through December 31, 2002. Identify: Regional office that issued each permit, permit writer if available, SIC code, EPA OR ID number, DEC file number, DEC permit number, whether the permit is major or minor facility for a domestic or industrial operation, whether the permit contains limits derived from TMDL allocations, and whether the permits include water-quality based limits.

DONE Provide the following information necessary to evaluate permit "backlog" in Oregon: Provide a list of all NPDES dischargers in the State of Oregon. For each discharger include the permit application date, issuance date, expiration date, major or minor facility, regional office

responsible for the permit. Lists should include each individual facility that is covered under a general permit.

Describe the permit planning process and permits that are identified for issuance. Provide a projection of permits scheduled for issuance during calendar year 2003.

DONE Identify which TMDL's have been completed during the period of January 1998 through December 2002. Also identify which TMDL's include waste load allocations for point sources and the names of the point sources.

Submit the most recent NPDES Program Memorandum of Agreement between EPA and ODEQ. Also submit the most recent Compliance Assurance Agreement.

NPDES Permit Quality Review Checklist - For POTWs

Administrative Record Information

		Response	Comment
1.	NPDES Permit number of facility		
2.	Name of facility:		
3.	Permit Reviewer (Last Name)		
4.	Date of review (MM/DD/YYYY)		
5.	Does the permit file contain each of the following items relating to the current/most recent permit?:		
5a.	Permit application and supporting data?(Y/N)		
	Date received:		
	Application completeness determination included?		
	WET testing results present?		
	Priority pollutant scan included?		
5b.	Statement of basis or fact sheet? (Y/N)		
5c.	Draft permit? (Y/N)		
5d.	Proof of public notice? (Y/N) Date noticed:		
5e.	All comments received during the public comment period and summary of response to significant comments? (Y/N)		

5f.	Transcripts or submissions from any hearing held? (Y/N/NA)		
5g.	Explanation of changes from draft to final permit? (Y/N)		
5h.	Mutual agreement and order (MAO) present? (List and summarize)		
5i.	Final permit? (Y/N) Date of final permit:		
5j.	Amendments or modifications to the final permit? (Y/N) Reason for modification:		

Facility Information

		Response	Comment
6.	Are all outfalls (including combined sewer overflow points) from the POTW treatment facility properly identified and authorized in the permit? (Y/N)		
7.	Does the record or permit contain a description of the wastewater treatment process and discharge point? (Y/N)		
8.	Does the record or permit describe the physical location of the facility? (Y/N)		
9.	Does the record or permit provide a description of the receiving water body(s) to which the facility discharges? (Y/N)		

Permit Cover Page/Administration

	Response	Comment

10.	Does the permit term exceed 5 years? (Y/N)		
11.	Does the permit contain specific authorization-to-discharge information (from where to where, by whom)? (Y/N)		
12.	Does the permit contain appropriate issuance, effective, and expiration dates and authorized signatures ? (Y/N)		

Effluent Limits

General Elements

		Response	Comment
13.	Does the record describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)? (Y/N)		
14.	Does the record indicate that any limits are less stringent than those in the previous NPDES permit? (Y/N)		
14 a.	If yes, does the record discuss whether “antibacksliding” provisions were met? (Y/N)		
15.	Have a set of permit limits been included in the permit for every outfall?		
16.	Is effluent flow monitored or limited?: Monitor frequency: Limit:		

Technology-Based Effluent Limits (POTWs)

		Response	Comment
17.	Does the permit contain numeric limits for ALL of the following: BOD (or an alternative; e.g., CBOD, COD, TOC), TSS, pH, and percent removal? (Y/N)		
18.	Are percent removal requirements for BOD (or BOD alternative) and TSS included, and are they consistent with secondary treatment requirements (generally 85%; or modified in accordance with 40 CFR Part 133 allowances. If modified - adequately documented?) (Y/N)		
19.	Are technology-based permit limits expressed in appropriate units of measure (i.e., concentration, mass, SU)? (Y/N)		
20.	Are permit limits for BOD and TSS expressed in terms of both 30-day (monthly) average and 7-day (weekly) average limits ? (Y/N)		
21.	Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day (monthly) average and 45 mg/l BOD5 and TSS for a 7-day (weekly) average)? (Y/N)		
21 a.	If yes, does the record provide an adequate justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations? (Y/N/NA)		

Water Quality-Based Effluent Limits

	Response	Comment

22.	Does the record indicate that the receiving water is impaired (i.e., that the receiving water is listed on the State's 303(d) list)? (Y/N)		
22 a.	If yes, does the record indicate that a TMDL has been COMPLETED for the receiving water? (Y/N/NA)		
22 b.	If yes, does the record indicate that any WQBELs were derived from a completed TMDL or end-of-pipe limits? (Y/N/NA)		
23.	Does the record describe (list) the designated uses of the water body to which the facility discharges (e.g., contact recreation, aquatic life use)? (Y/N)		
24.	Have all applicable water quality standards been clearly identified?		
25.	Does the record provide effluent characteristics for each outfall? (Y/N)		
26.	Does the record document that a "reasonable potential" evaluation was performed? (Y/N)		
26 a.	If yes, for which parameters?		
26 b.	If yes, does the record indicate that the "reasonable potential" evaluation was performed in accordance with the State's (or TSD) approved procedures ? (Y/N/NA)		
27.	Does the record describe the basis for allowing or disallowing in-stream dilution or a mixing zone? (Y/N)		

28.	Does the record describe the size of the mixing zone and how if was derived? (Y/N/NA)		
29.	Does the record present WLA calculation procedures for all pollutants that were found to have “reasonable potential”? (Y/N/NA)		
29 a.	What type of model was used to perform the WLA(s) (steady state, dynamic, other)?		
29 b.	What stream design flow is specified in the model? Does the stream design flow differ for acute v. chronic protection?		
30.	Does the record indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)? (Y/N/NA)		
31.	Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined? (Y/N/NA)		
32.	Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the record? (Y/N/NA)		
33.	For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, instantaneous) effluent limits established? (Y/N/NA)		
34.	Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)? (Y/N)		
35.	Does the permit contain seasonal limits? Are the limitations justified?		

36.	Does the record indicate that the permit will allow new or increased loadings to the receiving water? (Y/N)		
36 a.	If yes, does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy? (Y/N/NA)		
37.	Are whole effluent toxicity (WET) conditions included in the permit? If not, is justification included in the fact sheet to indicate that toxicity is not a problem?		
	Is there a temperature limit or temperature management plan requirement?		

Monitoring and Reporting Requirements

		Response	Comment
38.	Does the permit specify monitoring requirements for every pollutant for which limitations are included in the permit?		
39.	Does the permit require at least annual monitoring for all limited parameters? (Y/N)		
39 a.	If no, does the record indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver? (Y/N)		
40.	Does the permit identify the physical location where monitoring is to be performed for each outfall? (Y/N)		

41.	Does the permit require influent monitoring for BOD (or alternative) and TSS? (Y/N)		
42.	Are submittals of discharge monitoring report forms required?		

Special Conditions

		Response	Comment
43.	Does the permit include appropriate pretreatment program requirements? (Y/N/NA)		
44.	Does the permit include appropriate biosolids use/disposal requirements? (Y/N/NA)		
45.	Does the permit include appropriate storm water program requirements? (Y/N/NA)		
46.	If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadllines and requirements ? (Y/N/NA)		
47.	Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations? (Y/N/NA)		
48.	Does the permit allow discharges from Combined Sewer Overflows (CSOs) ? (Y/N)		

48 a.	If yes, does the permit require implementation of the “Nine Minimum Controls” ? (Y/N/NA)		
48 b.	If yes, does the permit require development and implementation of a “long-term control plan”? (Y/N/NA)		
48c .	If yes, does the permit require monitoring and reporting for CSO events? (Y/N)		
49.	Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs)]? (Y/N)		
50.	Have there been any variances - (301 a-m) granted in this permit?		

Standard Conditions

		Response	Comment
51.	Does the **permit** contain all 40 CFR 122.41 standard conditions? (Y/N)		

List of Standard Conditions – 40 CFR 122.41

- Duty to comply
- Duty to reapply
- Need to halt or reduce activity not a defense
- Duty to mitigate
- Proper O & M
- Permit actions
- Property rights
- Duty to provide information
- Inspections and entry
- Monitoring and records
- Signatory requirement
- Reporting requirements
  - Planned change
  - Anticipated noncompliance
  - Transfers
  - Monitoring reports
  - Compliance schedules
  - 24 hour reporting
  - Other non-compliance
- Bypass
- Upset

52.	Does the permit contain the additional standard condition for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]? (Y/N)		

Oregon NPDES Program Review 2003

Entrance Questions - Northwest Region
10/20/03

Organization:

1. How is this region organized with respect to the NPDES program? Particularly, how are enforcement and permit writing duties covered by staff? What roles do HQ (Portland) and this region play and how do they interact?

2. Are there field offices within the region and what are their NPDES permitting/enforcement roles?

3. Please provide an organizational chart of the Regional Office.

Resources:

4. How many resources are allocated for NPDES permit writing and NPDES enforcement in the region? How many resources are allocated to data management?

5. What non-NPDES tasks are staff responsible for? (e.g. state permit writing, state permit enforcement, facility plan reviews) It might be useful list the staff involved in NPDES programs and estimate the percent of time in NPDES and percent in non-NPDES.

6. What have been the NPDES resource trends over the past five years? What is the projected trend in the next 3 years?

Backlog:

7. What is being done to address the backlog of permits in this Region?

8. How are priorities established for issuing NPDES permits in this Region?

Permit Writing Procedures:

9. Describe procedures for reviewing and processing NPDES applications in this region.

10. Describe extent and general process for water-quality based permitting in this region.

11. Are mixing zones allowed? How are they expressed in permits and how are they determined (modeling, calculations, dye studies)?

12. If a facility needs time to come into compliance with a permit requirement, how is this handled? If an agreement is established, can the agreement be modified during the permit cycle?

13. How are waste load allocations from TMDLs being incorporated into permit limits.

14. How are permit limits developed for a parameter for which the receiving water is impaired prior to a TMDL being completed?

15. Describe the interaction/process between the permittee and permit writer throughout permit development.

16. Describe the permit modification process. Are major and minor modifications handled differently? Is public notice required? Can modifications be made after permit expiration?

17. Describe where the region uses any permit "templates", either EPA or State tools.

Data Management:

18. Once the permit is issued, describe the process for entering data into a tracking system (data includes permit dates, permit conditions, effluent data).

19. Describe procedures for reviewing and processing Discharge Monitoring Reports in this region. How are violations tracked? How is DMR data currently tracked? What is the Region's future plans for management of all NPDES program data?

Wet Weather:

20. Is the region tracking SSO's? How? What information is gathered for each SSO event?

21. Does the region allow blending (i.e. diverting influent around secondary treatment and blending with treated water prior to discharge)?

Storm Water:

22. What is the procedure for issuing storm water permits?

23. Does the region have an interagency agreement with the counties to issue permits of storm water?

Training:

24. Describe training available for permit writers and compliance officers.

Enforcement/Compliance Procedures:

25. Describe procedures for reviewing NPDES Inspections in this region.

26. Describe procedures for responding to citizen complaints. How soon after a complaint is received is an inspection conducted? How are the complaints documented and tracked?

27. Once the decision to take an enforcement action is completed, describe the procedure for determining what enforcement tool (i.e. formal, informal) is appropriate. If formal enforcement is warranted how is the case referred to the enforcement division?

28. Does staff or management decide upon the need and type of enforcement action. Describe the process.

29. Are permits reviewed by enforcement/compliance/Attorney General for enforcement risk? Describe and provide all examples of enforcement/compliance/Attorney General comment documents.

30. Are there any MOAs or cooperative agreements between ODEQ and other government agencies (state or federal) regarding enforcement/compliance of CWA and NPDES permits? If there are please describe the communication process between ODEQ and the entity.

Enforcement status:

31. What is the enforcement universe (i.e. how many facilities are tracked?)?

32. How many and what type of inspections are conducted each year and where?

33. How are inspections targeted? Please describe the inspection planning process.

34. How are inspections/enforcement prioritized (i.e. how does DMR review and citizen complaints fit in)? Please describe the process.

35. What were the inspection/enforcement priorities in the past five years? Why?

36. How are violations tracked? How are enforcement actions tracked?

37. How many major and minor industrial and municipal enforcement actions have occurred in this region over the past 2 years.

38. What are the penalties for various violations which have been addressed through formal enforcement actions. Please provide a spreadsheet.

39. If there is a penalty policy that is used to determine enforcement penalties, please provide a copy.

40. What is the time frame from the end of inspection to inspection report writeup to enforcement action to case closure? What is the department's policy on time lines of enforcement actions?

41. Have there been any special compliance/enforcement initiatives in the past five years?

Enforcement tools:

42. What mechanisms (e.g. compliance orders, penalties, NOVs) are used for enforcement and provide an example of an instance when each of these mechanisms are used?

43. Is there a mechanism in place to allow the Regions to communicate enforcement/inspection procedures to ensure consistency throughout Oregon in performing inspections and pursuing enforcement actions? If yes, please describe.

44. Is there a mechanism to assess the effectiveness of enforcement actions (i.e. the deterrent effect produced) throughout the sector or at individual facilities as a result of the enforcement action? Explain.

Oregon Western Region Permit Writer Interview:

Name:

1. How long have you been writing permits?

2. What kind of training have you had?

3. What percent of time is spent in NPDES versus other programs?

4. Backlog... Can the region make progress against the backlog? What direction are you getting regarding the backlog? Do you think it's important to get the backlog down?

5. What are impediments to issuing permits?

6. What do you do when changes are needed to the permit? What's your opinion about the use of MOA's in the region?

7. Is the region trying to issue WQ-based permits? What parameters typically receive WQ-based limits? Do you know of procedures for calculating "reasonable potential"? Do you look for background data, effluent characterization (i.e. calculating a CV and looking at constituents of the effluent?

8. What could DEQ do to improve it's NPDES program?

APPENDIX C
List of Permits Reviewed

Reference Number	Name	OR File Number	EPA Permit Number
1.	Union, City of	90800	OR0029939
2.	Athena, City of	4086	OR0022811
3.	NYSSA STP	62736	OR0022411
4.	Halfway STP	36156	OR0023329
5.	Echo	26200	OR0031470
6.	Dayville, City of	23560	OR0041505
7.	North Powder STP	61600	OR0022403
8.	La Grande, City of	48100	OR0020460
9.	Hermiston Irr. District	38215	OR0041599
10.	Boise Cascade - Elgin Complex	9444	OR0002411
11.	Baker City, City of	5324	OR0020699
12.	Ontario, City of	63631	OR0020621
13.	H.J. Heinz Company	63810	OR0002402
14.	Hermiston, City of	38212	OR0020761
15.	Hood River, City of	39694	OR002078
16.	Klamath Falls, City of	46763	OR0026301
17.	Northwest Aluminum	53166	OR0001708
18.	Pendleton, City of	68260	OR0026395
19.	The Dalles, City of	87830	OR0020885
20.	LaGrande, City of	48100	OR0020460
21.	Port of Morrow	46487	OR0031526

Reference Number	Name	OR File Number	EPA Permit Number
22.	Georgia Pacific Resins Inc.	32947	OR0032107
23.	Weyerhaeuser - Albany	97042	OR0000442
24.	Chiquita Processed Foods	959	OR0002062
25.	J.H. Baxter and Co.	6553	OR0031003
26.	City of Coos Bay	19802	OR0023574
27.	City of Albany	1098	OR0028801
28.	City of Lebanon	49764	OR0020818
29.	City of Medford	55125	OR0026263
30.	Eugene/Springfield	55999	OR0031224
31.	City of Halsey	36320	OR0022390
32.	City of Sweethome	86840	OR0020346
33.	City of Corvallis	20151	OR0026361
34.	City of Willamina	97397	OR0022713
35.	City of Oakland	62855	OR0020494
36.	Fort James Corp. - Wauna Mill		OR0000795
37.	Coastal Refining and Marketing Inc.		OR0001635
	City of St.Helens (pulp mill)	84069	
38.	Astoria, City of	3924	OR0027561
39.	Wilsonville, City of	97952	OR0022764
40.	Seaside, City of	79929	OR0020401
41.	Gresham, City of	35173	OR0026131
42.	Oregon Fresh Farms	107611	OR0035939

Reference Number	Name	OR File Number	EPA Permit Number
43.	Tillamook Creamery	88729	OR0000141
44.	Conrad Wood Preserving Co.	110480	OR0040614
45.	Portland General Electric	70825	OR0023451
46.	Twin Rocks, City of	90578	OR0023493
47.	Sandy, City of	78615	OR0026573
48.	Cannon Beach, City of	13729	OR0020222
49.	Rainier, City of	73412	OR0020389
50.	Clackamas		0026221
51.	Durham Plant in Tigard		0028118
52.	Clean Water Service of WA County	108014	
53.	Gresham, City of	108013	
54.	Portland, City of	108015	
55.	Clackamas County Water Env. Services	108016	